

IN THE SPECIFICATION:

Please amend the specification as follows:

Please replace paragraph 2 on page 3 with the following amended paragraph:

As a technique for optimizing the recording strategy under the condition of a high recording density, JP-A-2001-126260 describes a technique for deriving a pulse response from the reproduced waveform in the premise that the recording/reproducing system is linear, to optimize the recording strategy. According to this conventional technique, h_j providing minimum values for ε' are obtained as time-series data of the pulse response, the ε' being expressed by the following formula (1):

$$\varepsilon' = \frac{\sum_l (y_l - \sum_j a_{l-j} \times h_j)^2}{\sum_k (y_l - \sum_j a_{l-j} \times h_j)^2} \quad (1),$$

$$\varepsilon' = \frac{\sum_k (y_l - \sum_j a_{l-j} \times h_j)^2}{\sum_k (y_l - \sum_j a_{l-j} \times h_j)^2} \quad (1),$$

wherein a_l is a record data such as expressed by “1” or “0”, y_l are time-series data obtained by sampling the reproduced waveform based on the clock frequency of the record data. The range for “j” is determined by the range where the time-series data h_j assume non-zero finite values, and “k” is determined by the number of all the time-series data of the reproduced waveform. Subsequently, h_j and the minimum values of ε' in each recording pulse waveform are similarly derived by changing the each recording pulse waveform, and the recording pulse waveform providing the smallest value among the minimum values of ε' is determined as the optimum recording pulse waveform.

Please replace the paragraph bridging pages 10 and 11 with the following amended paragraph:

More specifically, the present invention provides an apparatus for recording/reproducing optical information, including an optical head irradiating an optical recording medium with laser light to receive reflected light therefrom, a laser drive for changing an optical intensity of a laser output thereof, and a control section having the functions of: converting a recording signal into a recording pulse waveform to transmit the same to the laser drive; sampling a reproduced waveform, reproduced from record marks on the optical recording medium, at a period shorter than a clock period; interpolating the sampled values; evaluating a difference between a waveform obtained by convolution of pulse responses determined from the reproduced waveform and the recording signal and a waveform obtained, by sampling the reproduced waveform and interpolating sampled values thereof, to adjust a width or power of the recording pulse waveform. In the recording/reproducing apparatus according to the present invention, the above ϵ or the above R1 or R2 may be evaluated to adjust the recording pulse waveform.

Please replace the paragraph bridging pages 14 and 15 with the following amended paragraph:

It is to be noted that the rotational speed of the optical disk may be fluctuated by some external disturbance, to thereby cause a situation where the rotational speed differs between

at the time of recording and at the time of reproducing. In such a case, due to the difference in the reference clock time between at the recording and at the reproducing, correct data cannot be obtained by the linear interpolation of the waveform data at the reproducing based on the clock time at the recording. However, even in this case, after assuming a plurality of clock times, the above ϵ , $R1$ and $R2$ are obtained by interpolating the waveform data for respective clock times thus assumed and then the minimum value for ϵ or the maximum values for $R1$ and $R2$ are examined, whereby the linearity of the waveform can be evaluated together with calculating the correct clock time at the reproducing.